Amendments to the Claims

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A composition comprising, a nonionic block copolymer, wherein the block copolymer has the following formula:

$$HO(C_2H_4O)_b(C_3H_6O)_a(C_2H_4O)_bH$$

wherein "a" is a number such that the molecular weight of the hydrophobe $(C_3H_6O)_a$, represented by the polyoxypropylene portion of the copolymer, is between approximately 750 and 15,000 Daltons; and "b" is a number such that the hydrophile $(C_2H_4O)_b$ portion of the block copolymer, represented by the polyoxyethylene portion of the block copolymer, is approximately 1% to approximately 45% 50% of the total weight of the block copolymer, and

one or more nucleic acid molecules selected from the group consisting of: genes, oligonucleotides, antisense oligonucleotides, triplex DNA compounds, ribozymes, or mixtures thereof;

wherein the composition further comprises an antimicrobial drug selected from the group consisting of; rifampin, isoniazid, ethambutol, gentamicin, tetracycline, erythromycin, pyrazinamide, streptomycin, clofazimine, rifabutin, fluoroquninolones, azithromycin, clarithromycin, dapsone, doxycyline, ciprofloxacin, ampicillin, amphotericin B, fluconazole, ketoconazole, pyrimethamine, sulfadiazine, clindamycin, paromycin, diclazaril, atovaquone, pentamidine, acyclovir, trifluorouridine, AZT, DDI, DDC, forscornat, viral protease inhibitors, ganciclovir, ribavirin, antiviral nucleoside analogs, or a combination thereof.

- 2-21 (Cancelled).
- 22. (Currently Amended) The method of Claim "9", wherein the one or more nucleic acid molecules are used for hybridization with one or more targeted RNA messages of a cell or virus

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A method of delivering a molecule to an animal, comprising administering to the animal a composition comprising a nonionic block copolymer, wherein the block copolymer has the following formula:

$HO(C_2H_4O)_b(C_3H_6O)_a(C_2H_4O)_bH$

wherein "a" is a number such that the molecular weight of the hydrophobe (C₃H₆O)_a, represented by the polyoxypropylene portion of the copolymer, is between approximately 750 and 15,000 Daltons; and "b" is a number such that the hydrophile (C₂H₄O)_b portion of the block copolymer, represented by the polyoxyethylene portion of the block copolymer, is approximately 1% to approximately 50% of the total weight of the block copolymer, and

one or more nucleic acid molecules selected from the group consisting of: oligonucleotides, antisense oligonucleotides, triplex DNA compounds, ribozymes, or mixtures thereof;

wherein the one or more nucleic acid molecules are used for hybridization with one or more targeted RNA messages of a cell or virus.

23. (Currently Amended) The method of Claim "9", wherein the one or more nucleic acid molecules are used for supplying a normal copy of a defective gene to an animal A method of delivering a molecule to an animal, comprising administering to the animal a composition comprising a nonionic block copolymer, wherein the block copolymer has the following formula:

$HO(C_2H_4O)_b(C_3H_6O)_a(C_2H_4O)_bH$

wherein "a" is a number such that the molecular weight of the hydrophobe $(C_3H_6O)_a$, represented by the polyoxypropylene portion of the copolymer, is between approximately 750 and 15,000 Daltons; and "b" is a number such that the hydrophile $(C_2H_4O)_b$ portion of the block copolymer, represented by the polyoxyethylene portion of the block copolymer, is approximately 1% to approximately 50% of the total weight of the block copolymer, and

one or more nucleic acid molecules selected from the group consisting of: genes, oligonucleotides, antisense oligonucleotides, triplex DNA compounds, ribozymes, or mixtures thereof;

wherein the one or more nucleic acid molecules are used for supplying a normal copy of a defective gene to an animal.

- 24. (Cancelled).
- 25. (Currently Amended) A method of delivering a molecule into a cell, comprising contacting the cell with a composition comprising a nonionic block copolymer, wherein the block copolymer has the following formula:

$$HO(C_2H_4O)_b(C_3H_6O)_a(C_2H_4O)_bH$$

wherein "a" is a number such that the molecular weight of the hydrophobe $(C_3H_6O)_a$, represented by the polyoxypropylene portion of the copolymer, is between approximately 750 and 15,000 Daltons; and "b" is a number such that the hydrophile $(C_2H_4O)_b$ portion of the block copolymer, represented by the polyoxyethylene portion of the block copolymer, is approximately 1% to approximately 45% 50% of the total weight of the block copolymer, and

one or more nucleic acid molecules selected from the group consisting of oligonucleotides, antisense oligonucleotides, triplex DNA compounds, ribozymes, or mixtures thereof.

- 26. (Cancelled)
- 27. (Previously Presented) The method of Claim 25, wherein the one or more nucleic acid molecules are used for altering gene activity.
- 28. (Previously Presented) The method of Claim 25, wherein the one or more nucleic acid molecules encode a gene or an antisense oligonucleotide.

- 29. (Previously Presented) The method of Claim 28, wherein the one or more nucleic acid molecules are used for intracellular immunization.
- 30. (Previously Presented) The method of Claim 28, wherein the one or more nucleic acid molecules are used for hybridization with one or more targeted RNA messages of a cell or virus.
- 31. (Previously Presented) The method of Claim 28, wherein the one or more nucleic acid molecules are used for supplying a normal copy of a defective gene to an animal.
- 32-36. (Cancelled).
- 37. (Previously Presented) A method for immunizing an animal against a particular gene product comprising administering to an animal a composition comprising a nonionic block copolymer, wherein the block copolymer has the following formula:

$$HO(C_2H_4O)_b(C_3H_6O)_a(C_2H_4O)_bH$$

wherein "a" is a number such that the molecular weight of the hydrophobe $(C_3H_6O)_a$, represented by the polyoxypropylene portion of the copolymer, is between approximately 750 and 15,000 Daltons; and "b" is a number such that the hydrophile $(C_2H_4O)_b$ portion of the block copolymer, represented by the polyoxyethylene portion of the block copolymer, is approximately 1% to approximately 50% of the total weight of the block copolymer;

an expression vector, wherein the expression vector contains a gene that codes for the gene product to be immunized against;

and wherein the composition further comprises approximately 0.1% to approximately 5% by weight of a surfactant.

38. (Currently Amended) The composition of elaim 34 claim 37, further comprising approximately 0.5% to approximately 5% by volume of a low molecular weight alcohol.

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- 39. (Previously Presented) The composition of claim 1, wherein the nucleic acid molecule is an isolated nucleic acid molecule.
- 40. (Currently Amended) The method of claim 9 claim 37, wherein the nucleic acid molecule is an isolated nucleic acid molecule.
- 41-42. (Cancelled).